

**Social Security: Historical Development and  
Current Structure, Benefits and Contributions**

**Prepared for the Policy Forum on Federal Retirement  
Sponsored by the Senate Committee on Government Affairs  
Subcommittee on Civil Service, Post Office, and General Services**

**April 17, 1984**

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**Any views expressed are the author's own and not necessarily  
those of the U.S. General Accounting Office.**

## I. INTRODUCTION

This paper describes the key elements of the U.S. Social Security system. The first section traces the development of that system from its beginnings in the 1930's through the most recent major modification in 1983. The next section outlines the major features of the system today. The final section discusses the current projections of the future financial condition of the program.

## II. DEVELOPMENT OF THE PUBLIC RETIREMENT INCOME PROGRAM

### A. The Social Security Act of 1935

The prevailing social ethic in the United States has traditionally placed a high value on self-reliance and self-provision, and this may help explain why the United States was one of the last major industrial countries to adopt a program of public social insurance. Social Security is the product of the Great Depression, the period in our history during which the ethic of self-reliance faced its most serious challenge. Yet the program's design reflects the continuing desire to preserve and reinforce the work ethic.

Prior to the Depression, the federal government role in retirement income security consisted almost exclusively of providing pensions for its own employees--mostly postal workers--and for veterans of the Armed Forces. The primary public sector role in caring for the needy aged was played by local governments and to some extent state governments, and traditionally this role was discharged through the operation of alms-houses and poor farms. Beginning in 1915, individual states began adopting programs offering cash assistance to needy aged residents. By 1930, of the 50 jurisdictions that are now states, 18 had some program of cash assistance for the needy aged; by 1935, 31 States had such a program.

During the Depression, millions lost their jobs and were forced to use savings accumulated for future retirement instead for support of their families. Others saw their personal savings disappear as a result of bank and business failures. The number of people who needed the assistance of others in order to survive grew enormously, and many who had never before thought they would ever need or accept government assistance found that they had no alternative. The political climate changed abruptly as the number in need of assistance greatly exceeded the ability of traditional state and local government institutions or of private charities and individual families to supply the assistance.

The federal government responded first with loans and then with grants to state governments to help these governments defray the cost of assisting the needy. When these efforts proved inadequate, direct federal emergency relief programs were established. Nonetheless, by 1937 the government estimated that roughly half of the population over age 65 had essentially no independent means of support at all and were dependent entirely on their friends, relatives, and children.

In this environment considerable political pressure developed for the enactment of more permanent measures to assure economic security, especially for the aged, and to further relieve the fiscal burden on state and local governments. A number of fairly radical proposals began to gain substantial support across the country, and the response of President Roosevelt and the Congress was the Social Security Act of 1935<sup>1</sup>. This Act created a variety of new economic security programs.<sup>2</sup> Among the most important were two of the basic elements of the present retirement income security system in the United States:

- (1) A national program of needs-based benefits for the aged.
- (2) The Old-Age Insurance program that is the cornerstone of today's Social Security program.

The needs-based program, called Old-Age Assistance, was viewed as the federal response to the immediate problem of income support for the needy aged. The precursor of today's SSI program, it was built on the pre-existing state programs. Under Old-Age Assistance, the federal government offered to finance one-half of the cost incurred by each state in operating a program of cash assistance for the needy aged. To be eligible for

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<sup>1</sup>Perhaps the most popular of the alternative proposals was the so-called Townsend Plan, which, it was argued, would both help the aged and cure the Depression. Under this plan, all citizens over 60 would be given a cash grant of \$200 a month regardless of their financial circumstances. The only condition for receipt of the grant would be that the full amount be spent within one month. (At the time, \$200 a month was almost twice the amount earned in a month by the average worker.) Proponents of the plan proposed that it be financed by a 2-percent national transaction tax. The plan had considerable political support despite the fact that public finance experts could never figure out how a 2-percent transaction tax would raise nearly enough money to finance the proposed expenditures.

<sup>2</sup>The act also created the Unemployment Insurance and Aid to Dependent Children programs.

federal sharing of the cost, a state program had to meet certain specified conditions, perhaps the most important of which was that eligibility be offered to all needy residents over the age of 65. Other elements were left to state option, including decisions about the level of benefits to be paid in each state program. At the outset, the federal government's only restriction on benefit levels was that federal payments not amount to more than \$15 per month per case.

The social insurance program, initially called Old-Age Annuities and subsequently called Old-Age Insurance, was viewed not as a solution to the immediate problem, but as the response to the longer-range retirement income needs of the nation's aged. Under the program as it was enacted in 1935, no benefits would be paid at all until 1942. Monthly benefits were to be based on a worker's accumulated taxable earnings. Moreover, monthly benefits paid to the first retirement cohorts would have been fairly modest because persons reaching retirement age in the 1940s would not have worked under the Social Security program for a very long period of time, and therefore, would not have had the chance to accumulate substantial amounts of taxable earnings. Indeed, under the program as enacted in 1935, the maximum anticipated benefit levels would have been reached only for those workers reaching 65 in 1982.

One important feature of the 1935 Act was the method chosen to finance Old-Age Insurance. The 1935 Act provided that benefits would be financed entirely from a payroll tax with one-half of the tax to be levied on the employer and the other half to be collected from the workers in the form of deductions from their pay checks. Specifically, there was to be no government contribution from the general revenues. The exclusive reliance on payroll tax finance was a conscious decision made by President Roosevelt and the Congress against the advice of many of those who had worked to develop the various economic security programs contained in the Social Security Act. Apparently the President and the Congress felt that in a society which placed a high value on self-reliance and self-provision it was appropriate for workers and their employers to bear the entire cost of retirement benefits through their tax-contributions.

Another important feature of the 1935 Act was the structure selected for the benefit package. Social insurance programs must strike a balance between the conflicting objectives of "individual equity" and "social adequacy." In some countries (e.g. West Germany) retirement benefits are scaled fairly directly to the worker's preretirement earnings level. The monthly benefit paid to a higher-wage worker exceeds that paid to a lower wage worker by roughly the same proportion that the higher-wage earner's preretirement earnings had exceeded those of the lower-wage earner. This kind of benefit structure is said to

stress the individual equity objective in that benefits are roughly proportional to preretirement earnings and hence to the level of the worker's past social insurance contributions.<sup>3</sup> On the other hand, in other countries (e.g. The Netherlands) Social Security pays flat-rate benefits. In these systems each worker receives upon retirement the same monthly benefit (perhaps scaled for years over which contributions had been made) regardless of the level of his or her preretirement earnings. This structure is said to stress the social adequacy goal of assuring at least a minimum level of retirement income.

Most countries structure their social security programs to strike a balance between these two objectives, and the striking of such a balance has been the policy in the U.S. from the beginning. Social Security in the United States always contained elements of individual equity in that higher-wage workers would receive at retirement larger monthly benefits than were received by lower-wage workers. It also had elements of social adequacy, however, in that the ratio of the benefit received by a low-wage earner to that earner's preretirement earnings exceeded the ratio of the benefit received by a higher-wage earner to the higher earner's preretirement earnings. In other words Social Security would "replace" a greater fraction of the preretirement earnings of the low earner than of the higher-wage earner. Under the 1935 Act, when the system was fully mature, retirement benefits for an earner with wages at the maximum amount taxable would represent only 34 percent of preretirement earnings; benefits for an average earner would represent 58 percent of the worker's preretirement earnings level; and benefits for a worker whose earnings averaged only half of those of the average earner would replace 73 percent of preretirement earnings.

#### B. Subsequent Development of Public Income Programs

The public income security programs created in 1935 have been modified and extended repeatedly in the years since. Some of these changes represented extensions envisioned in 1935, but for one reason or another not enacted then. Others represented modifications to the basic provisions of the original Social Security Act. To a surprising degree, however, many of the basic

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<sup>3</sup>The West German system does have several significant features that reflect social adequacy concerns, however. These include special earnings credits for long-service, low wage workers and benefits for widows and widowers.

elements of the public income security programs today are largely the same as they were when the programs were established almost 50 years ago.

Perhaps the most substantial modification to the structure of Social Security occurred in 1939, just four years after the program was created and before its first benefits were paid. There were two major changes. First, the benefit computation procedures were restructured so that benefits payable to workers retiring in the early years of the program--the 1940's and 1950's--were increased, while benefits scheduled for workers reaching retirement age when the program was fully mature--in the 1970's and 1980's--were reduced. Secondly, benefits for single retirees were reduced and monthly benefits were added for the dependents of retired workers and for the widows and children of workers dying before they reached retirement age. The program became Old-Age and Survivors Insurance.

The 1939 reshuffling of the benefit package had virtually no effect on average projected costs over the 40-year period from 1940 through 1980. The extra cost of monthly benefits to dependents of retired workers and survivors of deceased workers was offset by the savings produced by reducing benefits for single workers. The higher costs for benefit payments in the 1940's was offset by lower annual costs for benefit payments in the 1970's and 1980's. However, both changes had the effect of increasing the relative importance of social adequacy concerns at the expense of individual equity concerns in the Social Security benefit structure.

In the original Social Security Act, coverage was limited to wage and salary employees in private sector commercial and industrial enterprises. Federal government and railroad employees as well as State and local government employees were excluded. The former already had an adequate pension program sponsored by the federal government. The latter were excluded on the grounds that the federal government could not require participation because (it was then widely felt) the Constitution of the United States did not empower the federal government to levy a tax on state governments. Self-employed individuals (including farmers and professionals) and farm and domestic workers also were excluded, at least in part because of a fear that it would be very difficult to administer equitably a payroll tax levied on these workers.

Several amendments in the 1950's substantially reduced the number of American workers not covered by the Old-Age and Survivor's Insurance program. Mandatory coverage was extended to most self-employed individuals, to farm and domestic workers, and to members of the Armed Forces, while private nonprofit employers and state and local governments were given the option of electing

to be covered by Social Security. Over the years, the Railroad Retirement program has been modified so that today its basic benefits and financing arrangements so closely resemble Social Security that it operates almost as if railroad workers were covered directly by Social Security. Finally, in 1983 mandatory coverage was extended to all civilian employees of the federal government hired after 1983 and to all employees of nonprofit establishments. In addition, those state and local governments which had elected coverage earlier were prohibited from terminating.

The two major expansions in the scope of the Social Security program have been the addition of disability insurance in 1956 and of Medicare in 1965. Both of these additions had been identified by the program's early architects and advocates as desirable future additions to the benefit package, but they proved to be more controversial than the program of cash benefits for the aged. Each was adopted only after extended debate in the Congress and across the country, and each was established with its own identifiable portion of the Social Security payroll tax and its own separate trust fund. Initially, disability benefits were paid only to workers who were over age 50. However, in 1958 benefits were extended to those dependents of disabled workers that would qualify for benefits if they were dependents of retired workers, and in 1960 eligibility was extended to workers under age 50. Initially, Medicare was only available to those 65 and older; in 1972 it was extended to cover most disabled workers as well.

Although the cash benefit package has been modified repeatedly by the Congress in the years since 1939, there have been few changes in its basic structure. Among the more important modifications were:

- (1) the addition (in 1956 for women and 1961 for men) of actuarially reduced benefits for workers aged 62 to 65;
- (2) increases (in 1956, 1972, and, with more limited applicability, 1983) in the monthly benefit paid to surviving widows and widowers;
- (3) the addition (in 1965) and subsequent liberalization (in 1972, 1977, and 1983) of benefits for divorced women (and, beginning in the late 1970s, men);
- (4) the addition (in 1965) and subsequent repeal (in 1981) of benefits for students aged 18 through 21; and

- (5) the freezing (in 1977) and subsequent repeal (in 1981) of the minimum benefit.

Average benefit levels have been adjusted repeatedly to keep them more or less in line with changes in prevailing wage and price levels. In general, these adjustments were insufficient to keep up with wage and price changes in the 1940's but exceeded wage and price increases from the mid 1960s through 1972. Increasing awareness of the need to adjust the program for changes in nominal wage and price levels eventually lead to automatic indexing. Legislation enacted in 1972 indexed benefits automatically to the consumer price index, and the current procedure for calculating initial benefit amounts and for indexing that calculation was adopted in 1977.

In addition to the means-tested program of Old-Age Assistance, the Social Security Act of 1935 authorized federal grants to states to pay part of the costs of cash assistance to needy blind people. In 1950, another program was added which provided federal grants to defray partially the costs of state assistance to the needy who were permanently and totally disabled. In 1974, the structure of these cash assistance programs changed considerably, when the older programs of federal grants to states were replaced by the federal Supplemental Security Income Program (SSI). The SSI program guarantees a nationally-uniform, federal-financed minimum income to all needy aged, blind and disabled. Under this program, however, state governments are given the option of providing their residents with higher benefits than are provided under the federal program. Since many states do supplement the federal SSI payment, benefit levels continue to vary from state to state.

Despite the increased federal role in providing means-tested assistance, the importance of this type of aid has declined over the years while the size of the insurance program has grown significantly as it has matured. These trends are illustrated in Table 1, which shows the number of aged persons receiving Social Security and/or public assistance per 1,000 aged persons in the U.S. population. In 1940, 7 out of 1,000 aged persons were receiving Social Security benefits, while 217 out of 1,000 received Old-Age Assistance. By 1980, 914 out of 1,000 aged persons were receiving Social Security, while only 87 were receiving SSI.



Table 1

Persons 65 or Older Receiving Social Security and/or  
Means-Tested Assistance, 1940-1980

Aged Recipients Per 1,000 Aged Persons				
Year	OASI	OAA or SSI	OASI and SSI	OASI and/or SSI
1940	7	217	1	223
1950	164	224	22	366
1960	616	141	41	716
1970	855	104	63	896
1980	914	87	61	941

Source: Social Security Bulletin, Annual Statistical  
Supplement, 1982, Table 167

### **III. The Old-Age, Survivors, and Disability Insurance (OASDI) Program**

#### **A. Description of the Program**

The essential elements of the Social Security program are that it:

1. Is contributory, in that it is financed virtually exclusively by worker and employer contributions in the form of payroll taxes.
2. Pays an earnings related benefit, the size of which depends on, but is not directly proportional to, the earnings upon which prior contributions were made.
3. Is designed to replace only a portion of pre-retirement (or disability) earnings, especially for workers with earnings at or above average.
4. Is designed to encourage supplementation of benefits through private pensions and savings by paying benefits without a test of individual need.

Eligibility. To be eligible for retirement benefits a worker must have worked a minimum amount of time in employment that is covered by the program (and, hence, subject to the Social Security payroll tax). Workers reaching retirement age after 1990 must have worked the equivalent of 10 years in covered employment to qualify for benefits. Those reaching retirement age today must have worked at least one-quarter of the time between 1950 and the year they turn 62.<sup>4</sup>

More than 90 percent of the wage and salary workers and self-employed individuals in the United States are in employment covered by Social Security. The vast majority are in jobs for which coverage is mandated by law. Coverage is not mandated, but may be elected, for employees of state and local governments; under the 1983 legislation, once coverage has been elected it can not be terminated. About 70 percent of the employees of state and local governments are covered by Social Security. Prior to 1984, civilian employees of the federal government were not covered, but all such persons hired after 1983 are covered.<sup>5</sup>

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<sup>4</sup>A worker turning 62 in 1984 must have spent 8 and 1/4 years in covered employment to be eligible for retirement benefits. If a worker has sufficient attachment to covered employment to be eligible for--technically, "insured" for--retirement benefits, that worker also has sufficient credits to qualify his (or her) survivors for benefits in the event the worker dies. Those workers who die before they reach retirement age are insured for survivor benefits if they have been in covered employment for at least one-quarter of the years elapsing between the year they turned 21 (or 1950, if they turned 21 before 1950) and the year they died. To be insured for disability benefits, a worker must: (1) be insured for survivor benefits in the manner just outlined and, in addition, (2) have worked at least 5 or the previous 10 years in covered employment. Disabled workers under age 31 have to meet an alternative rule, and no one is ever insured for survivor or disability benefits without at least one and one-half years in covered employment.

<sup>5</sup>Technically, persons employed by railroads are covered by their own retirement program instead of Social Security. However, the railroad retirement and Social Security programs are so closely coordinated that for virtually all intents and purposes, railroad workers are covered by Social Security.

Computing the Basic Benefit<sup>6</sup> Social Security benefits are based on the worker's career average taxable earnings. When a worker files for retirement the worker's taxable earnings for each year since 1950 are adjusted to reflect the increase in economy wide earnings levels occurring since the year the earnings were actually received.<sup>7</sup>

A few of the years in which indexed earnings were the lowest are dropped, and the figures that remain are averaged to produce the worker's average indexed monthly earnings or AIME.<sup>8</sup> For

<sup>6</sup>The computation described here is the regular procedure applicable to persons turning 62, dying, or becoming disabled after 1979. A different (though comparable) procedure was in general use prior to 1979. There is also an "old-start" method which uses earnings credits back to 1937, but which is now rarely used because it usually produces a lower benefit. Finally, a special transitional guarantee which is similar to the method used previously can be used by people who reach 62 between 1979 and 1983.

<sup>7</sup>Technically, the earnings are indexed to the level prevailing the year the worker turned 60. For workers who die or become disabled before reaching age 62, earnings are indexed to the level two years before the date of death or disability. The two-year lag occurs because the measure used to construct the index first becomes available about ten months after the close of the year to which it applies. Retired workers' earnings are indexed to the level prevailing the year they turn 60 because workers are first eligible for benefits at age 62.

<sup>8</sup>In computing their AIME, workers must use as many years of indexed earnings as there are years elapsing between 1955 and the year the worker turns 62. A worker turning 62 in 1984 averages over the highest 28 years. Workers may use earnings from any year after 1950 in the calculation. If the worker turning 62 in 1984 retires at age 62, there will be 33 annual earnings figures (starting with 1951 and ending with 1983) in his earnings record. In effect, the worker gets to drop the lowest 5 from the calculation. Earnings in the year the worker reaches age 62 and later years may be substituted, without indexing, for lower indexed earnings in earlier years. Thus, if the worker continues to work until age 68 (in 1990), the worker will have 39 annual earnings figures in his earnings record and can drop the lowest 11. Workers who die before reaching age 62 average over the number of years equal to the number elapsing between 1955 and the year of death. The averaging period for older disabled workers is the same as that for workers who die before age 62. The rules for younger disabled workers (those becoming disabled before age 47) are more complicated.

workers reaching retirement age after 1990, AIME's will be computed over the highest 35 years of earnings. The use of a career average introduces some recognition of length of service into the calculation: If a worker does not have as many years of earnings as are required by the calculation, one or more years with zero earnings must be used.

The building block upon which all benefit amounts are based is called the primary insurance amount, or PIA. It is the benefit paid to a worker retiring at the normal retirement age, currently age 65. The PIA is calculated by applying a three-bracket "benefit formula" to the AIME. For workers dying, becoming disabled, or reaching 62 in 1984, the primary insurance amount is:

90 percent of the first \$267 of AIME, plus

32 percent of the next \$1,345 of AIME, plus

15 percent of the remainder,

with the result increased by the amount of any general benefit increases, such as cost of living adjustments, after 1984.

Each year, the bracket boundaries in the benefit formula are increased (or, if appropriate, decreased) by the percentage change in average wages in the economy. This produces the benefit formula applicable for workers dying, becoming disabled, or reaching 62 in the subsequent year. The adjustment has the effect of increasing the average initial retirement benefit awarded to successive cohorts at roughly the same rate as average money wage levels are increasing.

Adjustments for Age First Drawn. Monthly benefits are permanently increased or decreased if first drawn after or before age 65. Benefits are reduced by 6-2/3 percent for each full year before age 65 that they are first drawn. A worker's benefit at age 62, the age at which retirement benefits are first payable, thus amounts to about 80 percent of the primary insurance amount. Benefits are increased by 3 percent for each year after age 65 (up to age 70) that payment is delayed. A worker first claiming benefits at age 70 therefore receives a monthly benefit equal to 115 percent of the PIA.

The 1983 legislation scheduled future adjustments in the normal retirement age and the adjustments for early and delayed retirement. An increase in the credit for delaying retirement will be phased in beginning with the cohort turning 62 in 1987. Their benefits will be increased by 3-1/2 percent per year for each year that benefit receipt is delayed after the normal retirement age. The credit is increased by one-half percentage

point for every other cohort until it reaches 8 percent per year for those turning 62 after 2004. In addition, the normal retirement age is scheduled to increase by 2 years beginning in the year 2000. It will rise from 65 to 66 in the first decade after the year 2000 and from 66 to 67 in the third decade of the 21st century.<sup>9</sup> Early retirement benefits will still be available at age 62 after the retirement age increases, but they will be further reduced relative to the primary insurance amount. When the normal retirement age is age 67 workers retiring at age 62 will receive 70 percent of their PIA rather than 80 percent.

Dependents' Benefits. Monthly Social Security benefits are also available for certain spouses and for minor children of workers receiving retirement benefits. In theory, each child under age 18 receives a benefit equal to 50 percent of the PIA; a spouse caring for such a child under age 16 can receive a benefit equal to 50 percent of the PIA, and a spouse age 65 or over when benefits are first claimed also gets 50 percent.<sup>10</sup> In practice, a maximum limits the amount payable on the basis of any single earnings record. The maximum is about 150 percent of the primary insurance amount at lower earnings levels and about 175 percent of the PIA at higher levels.<sup>11</sup> Thus, a retired worker and his wife would receive 150 percent of the worker's PIA, while a worker with a wife and one child would receive the maximum benefit payable based on the worker's earnings, which is less than 200 percent of the worker's PIA.

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<sup>9</sup>Under current law, the normal retirement age is 65 for workers born in or before 1937; it increases by 2 months for each birth cohort beginning with the 1938 birth cohort and ending with the 1943 birth cohort. It is 66 for those born between 1943 and 1954, but again increases by 2 months for each birth cohort beginning with the 1955 birth cohort and ending with the 1960 birth cohort. It is age 67 for all workers born after 1960. The normal retirement age for widows born in any given year is equal to the normal retirement age for workers born 2 years previously.

<sup>10</sup>Spouses' benefits can be claimed as early as age 62 even if there are no minor children. However, they are permanently reduced by 25/36 percent for each month by which the spouse is under age 65.

<sup>11</sup>The maximum family benefits actually varies from 150 percent of the PIA at low PIA levels to 188 percent of the PIA at the middle level and drops to 175 percent at relatively high PIA levels. This variation is largely the result of historical accident.

Disabled workers receive a monthly benefit equal to their PIA regardless of their age. Their dependents are entitled to benefits under the same circumstances and in the same amounts as the dependents of retired workers. However, the limit on benefits for disabled workers' families is somewhat lower than for retired workers with the same PIA.

Aged widows (and widowers) of insured workers are eligible for a benefit equal to the worker's PIA if they first draw the benefit at the normal retirement age.<sup>12</sup> If either they (or their deceased spouses) draw a benefit before the normal retirement age, the widow(er)s benefit is permanently reduced. The benefit can be drawn as early as age 60, but if drawn at age 60, is equal to 71.5 percent of the PIA. Monthly benefits are also payable to the minor children of deceased workers and (if there is a child under age 16 receiving benefits) to a surviving spouse, regardless of age. Each receives 75 percent of the PIA subject to the limits imposed by the family maximum provision.

It is not uncommon for one person to be entitled potentially to more than one benefit at a given time--as, say, a retired worker and as the spouse or widow of a retired worker. Those people are said to be "dually entitled" and are paid an amount equal to the higher benefit for which they qualify.

Earnings Test. Social Security beneficiaries will have all or some of their benefits withheld if their earnings in a given year exceed a certain "exempt amount." In 1984, the exempt amount is \$5,160 for beneficiaries under age 65, and \$6,960 for those age 65 and over. Full benefits are paid as long as annual earnings are below these amounts; but if earnings exceed these levels, \$1 in benefits is withheld for each \$2 by which earnings exceed the exempt amount.<sup>13</sup> The exempt amounts are increased automatically each year by the percentage increase in average wage levels.

Cost-of-Living Adjustments. Post-entitlement benefit levels are adjusted automatically to reflect increases in the cost of living as measured by a national consumer price index (CPI). The average value of the index in the third calendar quarter of the year is compared to its value at the time the last automatic

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<sup>12</sup>If a worker dies before reaching age 62, the widow(er) is not disabled, and the widow(er) is under 60 when the worker dies, the worker's PIA is adjusted to reflect increases in average wage levels occurring after the worker died.

<sup>13</sup>Beginning in 1990, \$1 of benefits will be withheld for every \$3 in excess earnings beginning with the year the beneficiary attains the normal retirement age.

increases was triggered.<sup>14</sup> If the measure has increased by at least 3 percent, all monthly benefits are increased by the same percentage amount as the CPI index has increased. The increase is effective with the January checks. The size of the cost-of-living increase is constrained not to exceed the increase in average wages occurring in the calendar year preceding the time at which this calculation is being made if the wage increase is less than the CPI increase and the program's financial reserves are very low.<sup>15</sup>

#### B. Structure of Benefits

As noted, the Social Security benefit formula is structured to provide higher benefits to the worker with higher average career earnings, but to provide the worker with the lower AIME's a benefit that represents a higher fraction of the worker's pre-retirement earnings average. The formula thus is weighted to favor those with lower average earnings. The weighting is usually justified on the grounds that higher paid workers are more likely to have (or alternatively should be expected or encouraged to have) substantial income from other sources, such as employer pensions and individual savings and investments, to supplement Social Security benefits.

The practical effect of the structure is illustrated in the table below which compares hypothetical replacement rates at different current earnings levels. The comparison focuses on three workers, one whose earnings were always at the level of full-time work at the minimum wage level allowed by Federal law, one whose earnings have always been equal to the average for all workers under Social Security, and one who has always earned the maximum amount that is taxed and credited for benefit purposes. The table shows the 1983 earnings level for each and the ultimate replacement rate afforded each by the current Social Security

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<sup>14</sup>But no earlier than the third quarter of 1982.

<sup>15</sup>"Very low" means trust fund assets are projected to be less than 15 percent of of next year's projected annual expenditures at the end of any year from 1984 through 1988, and are projected to be less than 20 percent of projected annual expenditures at the end of any year thereafter. The calculation focuses on total reserves and total expenditures in Old-Age, Survivors' and Disability Insurance.



law. (The replacement rate shown here is the benefit for a worker retiring at the normal retirement age as a percentage of the earnings in the year before retirement.)<sup>16</sup>

Table 2

Social Security Replacement Rates  
For Hypothetical Workers

Worker	1983 Earnings Level	Ultimate Replacement Rate
Minimum	\$ 6,968	55.1%
Average	15,201	41.3%
Maximum	35,700	27.7%

Source: Social Security Administration, Office of the Actuary.

The replacement rates in Table 2 are for hypothetical, full career workers. In the late 1960s the Social Security Administration began a longitudinal survey which followed a cohort of actual workers as they entered retirement and began to receive Social Security and other retirement benefits. The data in Tables 3 and 4, taken from that survey, reflect replacement rates based on actual benefits received by and the actual earnings of this sample cohort of workers. (The cohort retired in the early 1970s; the calculation uses 1976 benefits and preretirement earnings at 1976 levels.)

<sup>16</sup>Because of some complexities arising from the introduction of the new computational system described here, people retiring at age 65 in the next several years will actually have somewhat higher replacement rates than those shown here. Also, because age-65 replacement rates will reflect actual cost-of-living adjustments for the 3 prior years, some year-to-year fluctuation in these rates can be anticipated over the long range. This calculation implicitly assumes that the federal minimum wage grows in the future at the same rate that average wages grow, although nothing in the law guarantees such a result.

Table 3

The Social Security Replacement Rates  
For a Sample of Actual Workers

Replacement Rate Quartile	Primary Insurance Amount			Monthly Benefit Amount		
	Married Men	Nonmarried Men	Nonmarried Women	Married Men	Nonmarried Men	Nonmarried Women
First	35	36	43	34	34	40
Median	40	43	48	38	40	46
Third	47	52	57	46	49	54

<sup>1</sup>Preretirement earnings are defined as the average of the middle four years from the ten years immediately preceding retirement (the high 3 and low 3 years are dropped). Earnings above the taxable maximum are ignored.

Source: Alan Fox (1982), Table 2. For details of sample selection and size, see the original article.

As shown in Table 3, the primary insurance amount for the median married man in the survey represented 40 percent of his Social Security covered preretirement earnings, and the monthly benefit was 38 percent of preretirement covered earnings. One-fourth of the married men (generally those with the lowest average earnings) had replacement rates of 47 percent or more, and one-fourth (generally those with the highest average earnings) had replacement rates of 35 percent or less. Replacement rates for nonmarried men and nonmarried women were somewhat higher because their preretirement earnings were somewhat lower.

As discussed previously, Social Security replacement rates for average and above average earners have been set at lower levels in part on the assumption that higher earners would have supplemental, private retirement incomes. The major source of private retirement income is employer-provided pensions. The data in Table 4 are from the same longitudinal survey that produced the data in Table 3 and illustrate how Social Security benefits and private pension benefits interact.

**Table 4**  
**1976 Social Security and Second Pension Replacement Rates**  
**For a Sample of Actual Married Couples**

Preretirement Earnings <sup>2</sup>	Replacement Rate <sup>1</sup>		
	Percent Receiving Second Pensions	Social Security Only	Total
1st Quintile (under \$6,891)	9%	76%	79%
2nd Quintile (\$6,891 to \$10,799)	35	55	60%
3rd Quintile (\$10,800 to \$13,765)	57	45	57%
4th Quintile (\$13,766 to \$18,026)	69	37	50%
5th Quintile (over \$18,027)	76	28	46%

1. Benefits in 1976 prices divided by average earnings.
2. Combined average preretirement earnings of husband and wife, including estimate of earnings above the Social Security maximum. Average constructed by indexing all earnings to levels prevailing in 1976, dropping lowest 3 and highest 3 years in the ten years prior to retirement, and averaging the remaining 4 years.

Source: Fox (1982), Table 8. Data based on a sample of 1,859 cases. For further details, see source.

Table 4 focuses only on married couples. In constructing the replacement rates in this table, the couple's combined monthly benefits from both Social Security and private pensions are compared to estimates of the combined total preretirement earnings of husband and wife. As expected, the Social Security replacement rate declines as preretirement earnings levels rise. However, the incidence of private pension receipt rises as preretirement earnings levels rise, and the increasing prevalence of private pensions at higher earnings levels serves, as was intended, to offset partially the reduction in Social Security replacement rates.

### C. Financing

For the cash benefit programs and the hospital insurance part of medicare, the vast majority (usually over 95 percent) of the necessary revenues are derived from the Social Security payroll tax. This tax is a flat rate tax levied at equal rates on employers and employees and applied to all earnings up to a specified annual maximum; in 1984, \$37,800. The taxable maximum is indexed to rise at the rate average wage levels are rising and is adjusted each time a cost-of-living increase occurs; the maximum sets a ceiling on both the amount of earnings that can be taxed and the amount that can be credited for benefit computation purposes in any given year. At the current level of the taxable maximum, about 90 percent of all earnings derived from employment covered by the program are taxable and about 94 percent of the people who work in covered employment are taxed on their entire annual earnings.

The proceeds of the payroll tax, along with any other revenues used to support the program, are deposited in special Treasury accounts--the trust funds--and all benefit payments and administrative expenses are charged to these accounts. There are separate accounts for Old-Age and Survivors' Insurance (OASI), Disability Insurance (DI) and each of the two parts of the Medicare program. Hospital Insurance (HI), which is Part A of Medicare, is financed almost entirely from payroll taxes in much the same way as are the cash benefit programs: Supplementary Medical Insurance (SMI), which is Part B of Medicare, is financed from participant's premiums and the general revenues.

The law specifies both the aggregate payroll tax rate and the manner in which payroll tax revenues are to be divided among the three payroll tax-financed programs. Currently scheduled tax rates for either employees or employers are shown in Table 5. Since employees and employers each pay the rate shown in Table 5, the combined cost in 1985 is two times 7.05 percent, or 14.1 percent of taxable payroll. Also, in 1984 there is a one-time general revenue financed tax credit for employees equal to 0.3 percent of taxable wages. In principle, the employee will be paying 7.0 percent into the Social Security Trust funds as shown above. But in practice, the employees' liability is immediately reduced to 6.7 percent of taxable pay because of the one-time tax credit. Employees will have the full 7.05 percent tax deducted in 1985.

In the past, Social Security benefits were exempt from federal income taxes. Beginning in 1984, however, a portion of Social Security cash benefits may be counted as income for purposes of computing federal personal income tax liabilities. Benefits remain tax free for single taxpayers with incomes of less than \$25,000 and married couples filing jointly with incomes

of less than \$32,000.<sup>17</sup> Taxpayer units with incomes in excess of these limits (as well as all married couples filing separate returns) must include up to one-half of their Social Security benefits as taxable income. Amounts equivalent to the estimated quarterly proceeds from taxing benefits are deposited in the Social Security trust funds. These revenues are projected to amount to just over \$2.5 billion in calendar 1984, and should constitute the second largest source of revenue for the cash benefit program in that year.

Table 5

## Currently Scheduled Social Security Payroll Tax Rates

Year	OASI	DI	OASDI	HI	OASDHI
1984	5.2%	0.5%	5.7%	1.3%	7.0%
1985	5.2	.5	5.7	1.35	7.05
1986-87	5.2	.5	5.7	1.45	7.15
1988-89	5.53	.53	6.06	1.45	7.51
1990-99	5.60	.6	6.20	1.45	7.65
2000 and later	5.49	.71	6.20	1.45	7.65

Source: John Svahn and Mary Ross (1983), Table A

<sup>17</sup>For the purpose of this calculation, income is defined as adjusted gross income plus one-half of the Social Security benefit received plus certain other sources of income that are otherwise exempt from federal income taxes. The income limits are not indexed.

### III. Current Financial Projections

Social Security is financed on a current cost basis. This means that most of the revenues collected in any given year are used to finance the benefits paid that year. Traditionally, the balances in the trust funds have been viewed as contingency reserves whose primary purpose is to cushion temporary imbalances between income and outgo.

An annual report of the trust funds' board of trustees is submitted to the Congress each spring showing detailed projections of costs and revenues for 75 years into the future. The projections are made under three or four different sets of assumptions about key future demographic and economic developments. Additional projections of short-range financial performance are prepared at other times during the year.

The data in Table 6 are from the most recent short-range estimates of the status of the Social Security cash benefit program. These projections are based on the economic assumptions used for the 1984 Trustees' Report.

They suggest that the balance between revenues and expenditures will be very close between now and the end of 1987, although income is projected to exceed outgo in each of the years. The financial condition is projected to improve dramatically beginning in 1988, largely as a result of the higher OASDI tax rate which goes into effect that year. Under these projections, the final portion of the loan from HI is paid off during 1987, and the program experiences substantial surpluses into the 1990's.

Longer-range projections from the 1984 report of the Board of Trustees are summarized in Table 7. These projections express future costs and future income as a percentage of total earnings subject to the payroll tax; the projections employ a pessimistic set of assumptions, an optimistic assumption set, and an intermediate set.

The 75-year projections under the intermediate assumption set are shown at the top and center of Table 7. Costs are projected to average 12.95 percent of taxable payroll, average total revenues are projected to be 12.90 percent of payroll, and the two are essentially balanced.

Not surprisingly, the full picture is not quite as simple as this one 75-year result implies, and some of the complexities are illustrated in the rest of Table 7. For example, the other results at the top of the table show the sensitivity of the cost projections to the demographic and economic assumptions

Table 6.

Estimated Operations of the OASDI Trust Funds Combined Under Present Law on the Basis of the 1984 Trustee Report, (Intermediate (B) Assumptions), Calendar Years 1983-93 (Amounts in billions)

Calendar Year	Income	Outgo	Interfund Transfers <sup>1</sup>	Net Change	Funds at End of Year <sup>2</sup>	Reserv. Ratio
1983	\$171.3	\$171.2		\$ 0.1	\$ 24.9	14%
1984	184.4	181.5		2.9	27.7	21%
1985	203.2	194.1		9.1	36.8	21%
1986	221.6	209.3	\$ -5.5	6.7	43.6	25%
1987	241.2	226.2	-6.9	8.1	51.7	27%
1988	277.2	243.4		33.8	85.4	29%
1989	301.2	260.3		41.0	126.4	41%
1990	331.8	277.6		54.3	180.7	54%
1991	356.9	295.1		61.8	242.5	69%
1992	382.5	313.5		69.0	311.5	85%
1993	410.4	332.8		77.6	389.1	101%

<sup>1</sup>Transfers to HI Trust Fund to repay earlier loans (Transfers between OASI and DI are netted out).

<sup>2</sup>For 1983-85, includes \$12.4 billion outstanding loan from HI. Projections show loan being repaid in 1986-87 time frame.

<sup>3</sup>Assets at beginning of year as percentage of outgo during year. Assets include the advance tax transfer for January.

Source: Social Security Administration, Office of the Actuary, Memorandum on Estimated Operations of the OASI, DI, and HI Trust Funds on the Basis of the 1984 Trustees Report Assumptions, April 5, 1984, table 4.

employed. Over the next 75 years, the system could be under-financed by an average 4.1 percent of payroll or could be over-financed by almost 3 percent of payroll if one wishes to employ, alternatively, plausible pessimistic assumptions or plausible optimistic assumptions.

Also, the financial projections differ substantially from one 25-year period to another. Under all three assumption sets, the system runs a substantial surplus over the next 25 years. The OASDI payroll tax rate now scheduled for 1990 and thereafter is higher than the rate required for current-cost financing, whereas under either the intermediate or pessimistic assumptions, the rate scheduled for the period 2034-2058 is less than current-cost financing would require. The 75-year balance under the intermediate assumption set requires the accumulation of large surpluses in the period 1990 to 2015; these surpluses are then drawn down to cover annual deficits in the years 2034 to 2058. Just before the end of the projection period, the surpluses accumulated earlier will be exhausted and benefit payments can be continued only if taxes are increased or benefits are reduced. Also, under these assumptions, the accumulated OASDI trust fund balance rises to levels unprecedented in the history of the program. By 2015, the balance is projected to be about 25 percent of the gross national product.<sup>18</sup> It remains to be seen whether future Congresses will allow accumulation of surpluses of this magnitude.

One reason such large surpluses might not materialize in the OASDI program is the currently projected financial situation in the payroll tax-financed Hospital Insurance program. HI is now projected to encounter financing difficulties beginning in the late 1980's or early 1990's and under all three assumption sets it faces a substantial deficit over the next 25 years; under the pessimistic assumption set, its 25-year deficit is greater than the surplus projected for OASDI. It is entirely possible that a future Congress will decide to cover a part of the deficit currently projected in the HI program by reallocating a portion of the payroll tax revenues now scheduled to go to the OASDI program after 1990.

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<sup>18</sup>Calculated from the 1984 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors and Disability Insurance Trust Funds, Tables 31 and 33.



TABLE 7

## 1984 75-Year OASDI Income and Expenditure Projections

(Average annual total Projected Income and Expenses  
as a Percent of Projected Taxable Payroll)

	Assumption Set		
	Pessimistic	Intermediate (B)	Optimistic
Old-Age, Survivors and Disability Insurance (OASDI)			
Full 75 years (1984-2058)			
Average Cost	17.22	12.95	10.01
Average Income	13.10	12.90	12.76
Balance	-4.12	-0.06	+2.75
First 25 years (1984-2008)			
Average Cost	11.63	10.54	9.36
Average Income	12.59	12.56	12.51
Balance	+0.97	+2.01	+3.15
Second 25 years (2009-2033)			
Average Cost	16.48	13.02	10.15
Average Income	13.13	12.97	12.85
Balance	-3.36	-0.05	+2.69
Third 25 years (2034-2058)			
Average Cost	23.55	15.29	10.52
Average Income	13.57	13.16	12.92
Balance	-9.98	-2.14	+2.40
Hospital Insurance (HI)			
25 years (1984-2008)			
Average Cost	5.59	4.25	3.32
Average Income	2.88	2.88	2.88
Balance	-2.71	-1.37	-0.44

Note: Totals do not necessarily equal the sum of rounded components.

Source: 1984 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, table 32, p. 77 and Summary of the 1984 Annual Reports of the 1984 Annual Reports of the Medicare Board of Trustees, table 4, p. 9.

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